

**Notice of Allowability**

Application No.

10/614,954

Applicant(s)

HOHN ET AL

Examiner

Art Unit

Medina A. Ibrahim

1638

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of 05/09/05.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ The drawings filed on 07 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other ____.   |

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gregory Warren on 06/25/05.

The application has been amended as follows:

In The Title:

The title has been replaced with the following:

--- ISOLATED NUCLEIC ACIDS ENCODING TRICHOTHECENE 3-O-  
ACETYLTRANSFERASES ----.

In The Abstract:

The abstract has been replaced with the following:

---- The present invention discloses isolated polynucleotides encoding polypeptides having trichothecene 3-O-acetyltransferase activity, recombinant vectors and host cell comprising said polynucleotides-----.

In The claims:

In claims 3-5, "gene" has been replaced with ---DNA-----.

### ***Reasons for allowance***

The following is an examiner's statement of reasons for allowance: the prior art does not teach or reasonably suggest a nucleotide sequence that is 100% identical to

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SEQ ID NO: 5 or a nucleotide sequence encoding SEQ ID NO: 6. The closest prior art is Kimura et al (J. Biol. Chem. (1998), 273 (3): 1654-1661, Applicant's IDS) who teach a nucleotide sequence having 99% sequence identity with Applicant's SEQ ID NO: 5. See attached sequence alignment results (Exhibit A/B) between SEQ ID NO: 5/6 and the prior art sequences.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Contact information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and after final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Amy Nelson, can be reached at (571) 272-0804.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

6/25/05

Mai

MEDINA A. IBRAHIM  
PATENT EXAMINER

*Medina A. Ibrahim*  
1638

06 May 2005

## Alignment Results

Alignment: Global DNA alignment against reference molecule  
 Parameters: Scoring matrix: Linear (Mismatch 2, OpenGap 4, ExtGap 1)

Reference molecule: SEQIDNO:5, Region 1-1356  
 Number of sequences to align: 2  
 Settings: Similarity significance value cutoff: >= 60%



## Summary of Percent Matches:

Reference:	SEQIDNO:5	1 - 1356	( 1356 bps)	--
Sequence 2:	Kimura Tri101	135 - 1490	( 1356 bps)	99%

SEQIDNO:5	1	atggcctttcaagatacagctcgacaccctcgccagctaccaggcctcctttcgatctac
Kimura Tri10	135	atggcctttcaagatacagctcgacaccctcgccagctaccaggcctcctttcgatctac
SEQIDNO:5	61	acccaaatcagtcctctaccccgctctctgattcctctcaatatccactattgtcagc
Kimura Tri10	195	acccaaatcagtcctctaccccgctctctgattcctctcaatatccactattgtcagc
SEQIDNO:5	121	accttcgagcaaggctcttaagcgcttctccgaagccgctcccatgggtcgagccaggtc
Kimura Tri10	255	accttcgagcaaggctcttaagcgcttctccgaagccgctcccatgggtcgagccaggtc
SEQIDNO:5	181	aaagccgagggcattagcgagggaaacacaggaaacttcctttatcgctccctttgaggac
Kimura Tri10	315	aaagccgagggcattagcgagggaaacacaggaaacttcctttatcgctccctttgaggac
SEQIDNO:5	241	gttcctcgtgttgtagtgaagacctccgcatgatccttcagcgcccacgatcgaggggt
Kimura Tri10	375	gttcctcgtgttgtagtgaagacctccgcatgatccttcagcgcccacgatcgaggggt
SEQIDNO:5	301	atgagaaaggcgggataccctatggcgatgtttgacgagaacatcatcgcgccaaggaag
Kimura Tri10	435	atgagaaaggcgggataccctatggcgatgtttgacgagaacatcatcgcgccaaggaag
SEQIDNO:5	361	acgttacctattggacctggtactgggtcccgacgacccaaagcctgtgaattctattgcag
Kimura Tri10	495	acgttacctattggacctggtactgggtcccgacgacccaaagcctgtgaattctattgcag
SEQIDNO:5	421	ctcaacttcataagggcggtactcctcactgtcaacggacagcacgggtgctatggat
Kimura Tri10	555	ctcaacttcataagggcggtactcctcactgtcaacggacagcacgggtgctatggat
SEQIDNO:5	481	atggtaggccaagatgcggtgatccgtctactctccaaggcgtgcccgaacgacccattc
Kimura Tri10	615	atggtaggccaagatgcggtgatccgtctactctccaaggcgtgcccgaacgacccattc
SEQIDNO:5	541	accgaagaggaaatgacggccatgaacctcgatcgcaagacgatagttccttaccttgaa
Kimura Tri10	675	accgaagaggaaatgacggccatgaacctcgatcgcaagacgatagttccttaccttgaa
SEQIDNO:5	601	aactatacgattggccccgaggtagatcatcagattgtcaaagctgatgtagctggtggt
Kimura Tri10	735	aactatacgattggccccgaggtagatcatcagattgtcaaagctgatgtagctggtggt
SEQIDNO:5	661	gacgctgtttctcagcgccgtcagtgcaagctgggcgttcttcacattcagccccaaaggcc
Kimura Tri10	795	gacgctgtttctcagcgccgtcagtgcaagctgggcgttcttcacattcagccccaaaggcc
SEQIDNO:5	721	atgtcagagctcaaggatgctgctaccaagactcttgacgcatcaacaaagttcgtgtcg
Kimura Tri10	855	atgtcagagctcaaggatgctgctaccaagactcttgacgcatcaacaaagttcgtgtcg
SEQIDNO:5	781	actgacgatgctctttcggcggttcactctggaaatcgccctctcgcggtgctctcgaaaga
Kimura Tri10	915	actgacgatgctctttcggcggttcactctggaaatcgccctctcgcggtgctctcgaaaga
SEQIDNO:5	841	atcgatggctctgcacctaccgagttctgcccgtgctgttgatgctcgaccggcaatgggt
Kimura Tri10	975	atcgatggctctgcacctaccgagttctgcccgtgctgttgatgctcgaccggcaatgggt
SEQIDNO:5	901	gtctcgaacaactaccaggccttcttcaaaacatgacctaccacaactcgaccatcggc
Kimura Tri10	1035	gtctcgaacaactaccaggccttcttcaaaacatgacctaccacaactcgaccatcggc
SEQIDNO:5	961	gaaatcgccaacgagtcactcgggcggaacagcatcacgccttcggttcagaactcgacccc
Kimura Tri10	1095	gaaatcgccaacgagtcactcgggcggaacagcatcacgccttcggttcagaactcgacccc

SEQIDNO:5 1021 gcgagcatgcgccagcgaacaagaggtctcgcgacgtacctgcacaacaaccccgacaag  
Kimura Tri10 1155 gcgagcatgcgccagcgaacaagaggtctcgcgacgtacctgcacaacaaccccgacaag

SEQIDNO:5 1081 tccaacgtatccttgacggctgatgcggacccatctaccagcgtcatgctgagttcttgg  
Kimura Tri10 1215 tccaacgtatccttgacggctgatgcggacccatctaccagcgtcatgctgagttcttgg

SEQIDNO:5 1141 gccaaggtgggactctgggattacgactttgggctcggactgggtaagcccagactgtg  
Kimura Tri10 1275 gccaaggtcggactctgggattacgactttgggttcggactgggtaagcccagactgtg

SEQIDNO:5 1201 agacggccaatctttgagcctgttgagagcttgatgtactttatgcccaagaagcctgat  
Kimura Tri10 1335 agacggccaatctttgagcctgttgagagcttgatgtactttatgcccaagaagcctgat

SEQIDNO:5 1261 ggcgagttctgtgcggcgctttctctgagggatgaggatatggaccgattgaaggcggat  
Kimura Tri10 1395 ggcgagttctgtgcggcgctttctctgagggatgaggatatggaccgattgaaggcggat

SEQIDNO:5 1321 aaggagtggaccaagtatgcgcagtagcgttggttag  
Kimura Tri10 1455 aaggagtggaccaagtatgcgcagtagcgttggttag

06 May 2005

# Alignment Results

Exhibit B

Alignment: Global Protein alignment against reference molecule  
Parameters: Scoring matrix: BLOSUM 62

Reference molecule: SEQIDNO:6, Region 1-451

Number of sequences to align: 2

Settings: Similarity significance value cutoff: >= 60%



## Summary of Percent Matches:

Reference:	SEQIDNO:6	1 - 451	( 451 aa)	--
Sequence 2:	Kimura Tri101 Pro	1 - 451	( 451 aa)	99%

SEQIDNO:6	1	mafkiqltdtlgqlpgllsiytqisllypvsdssqyptivstfeqglkrfseavpwvagqv
Kimura Tri10	1	mafkiqltdtlgqlpgllsiytqisllypvsdpsqyptivstfeqglkrfseavpwvagqv
SEQIDNO:6	61	kaegisegntgtsfiivpfedvprvvvkdldrddpsaptiegmrkagypmamfdeniapr
Kimura Tri10	61	kaegisegntgtsfiivpfedvprvvvkdldrddpsaptiegmrkagypmamfdeniapr
SEQIDNO:6	121	tlpiggpgtgppddpkpvillqlnfikggllltvngqhgamdmggdavirllskacrndpf
Kimura Tri10	121	tlpiggpgtgppddpkpvillqlnfikggllltvngqhgamdmggdavirllskacrndpf
SEQIDNO:6	181	teeemtamnlrktivpylenytigpevdhqvkdavaggdavltpvsaswafftfspka
Kimura Tri10	181	teeemtamnlrktivpylenytigpevdhqvkdavaggdavltpvsaswaffkfspka
SEQIDNO:6	241	mselkdaatktldastkfvstddalsafiwwksasrvrleridgsaptefcravdarpmg
Kimura Tri10	241	mselkdaatktldastkfvstddalsafiwwksasrvrleridgsaptefcravdarpmg
SEQIDNO:6	301	vsnnypgllqnmtyhnstigeianeslgatasrlrseldpasmrqrtrglatylhnnpd
Kimura Tri10	301	vsnnypgllqnmtyhnstigeianeslgatasrlrseldpasmrqrtrglatylhnnpd
SEQIDNO:6	361	snvsltadadpstsvmlsswakvgglwdydfglglgkpetvrrpifepveslmyfmpk
Kimura Tri10	361	snvsltadadpstsvmlsswakvgglwdydfglglgkpetvrrpifepveslmyfmpk
SEQIDNO:6	421	gefcaalslrddedmdrlkadkewtkyaqyvg
Kimura Tri10	421	gefcaalslrddedmdrlkadkewtkyaqyvg